

DEVICE FOR FORMING A PERIPHERALLY CLOSED HOLLOW PROFILED
ELEMENT BY MEANS OF FLUIDIC INTERNAL HIGH PRESSURE

BACKGROUND AND SUMMARY OF THE INVENTION

[0001] This invention relates to a device for forming a peripherally closed hollow profiled element by means of fluidic internal high pressure.

[0002] A device of this general type is known from German document DE 199 05 849 C1. The device described there comprises an internal high pressure forming die, in the forming space of which a hollow profiled element can be laid, while the peripherally closed hollow profiled element is to be expanded into a final form by means of fluidic internal high pressure during the closing of the internal high pressure forming die. The device comprises, furthermore, an axial plug, by means of which the hollow profiled element is to be sealed off on the end face and which possesses an axial passage duct, via which a pressure fluid can be introduced into the hollow profiled element interior for expansion. The plug head of the axial plug penetrates into the hollow profiled element according to Figure 5 and Figure 7 of the German document, is designed as an elastic sealing body, and consists of polyurethane. The elastic sealing body has, on its end face, a trough-like depression, of which the peripheral wall projecting into the hollow profiled element can be spread radially elastically, during the expansion process, by means of a pressure fluid, until it comes to bear sealingly against the inner wall of the hollow profiled element. If, then, an axial plug designed in this way is pushed into the hollow profiled element, the sealing body